

## **IN THE CLAIMS**

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please **CANCEL** claims 1, 12, 17, 28, 32, 33, 44, 48, 49, 60, and 64 without disclaimer or prejudice.

Please **AMEND** claims 2-6, 18-22, 34-38, 43, 50-59, 61-63, and 65 as follows.

1. (CANCELLED)
2. (CURRENTLY AMENDED) A logical circuit designing device, comprising:
  - a logical circuit storage unit storing a logical circuit;
  - a transmission line circuit storage unit storing a transmission line circuit corresponding to the logical circuit stored in the logical circuit storage unit;
  - a transmission line circuit editing unit editing the transmission line circuit stored in the transmission line circuit storage unit; and
  - a logical circuit modification unit modifying the corresponding logical circuit ~~based~~ on according to a difference between the transmission line circuit edited by the transmission line circuit editing unit and the logical circuit, andwherein the logic circuit is automatically modified when the transmission line circuit is re-edited.
3. (CURRENTLY AMENDED) A logical circuit designing device, comprising:
  - a logical circuit storage unit storing a logical circuit;
  - a transmission line circuit generation unit generating a transmission line circuit based on the logical circuit stored in the logical circuit storage unit;
  - a transmission line circuit storage unit storing the transmission line circuit generated by the transmission line circuit generation unit;
  - a transmission line circuit editing unit editing the transmission line circuit stored in the transmission line circuit storage unit; and
  - a logical circuit modification unit modifying the corresponding logical circuit ~~based~~ on according to a differential between the transmission line circuit edited by the transmission line

circuit editing unit and the logical circuit, and

wherein the logic circuit is automatically modified when the transmission line circuit is re-edited.

4. (CURRENTLY AMENDED) ~~The~~A logical circuit designing device ~~according to claim 1~~, further comprising:

a logical circuit storage unit storing a logical circuit;

a topology designation table storing topology information indicating a type~~types~~ of a connection~~connections~~ between active components composing a~~the~~ logical circuit; ~~circuit~~, and

a transmission line circuit generation unit generating transmission line circuit data suitable for transmission line circuit analysis based on the stored logical circuit and the logical circuit connection ~~wherein said transmission line circuit generation unit generates a transmission line circuit based on the topology information stored in the topology designation table; and~~

a transmission line circuit data storage unit storing the transmission line circuit data generated by the transmission line circuit generation unit.

5. (CURRENTLY AMENDED) ~~The~~A logical circuit designing device ~~according to claim 1~~, further comprising:

a logical circuit storage unit storing a logical circuit;

a value designation table storing a value~~values~~ of a passive component~~components~~ composing a~~the~~ logical circuit; ~~circuit~~, and

a transmission line circuit generation unit generating transmission line circuit data suitable for transmission line circuit analysis based on the stored logical circuit and the values of the logical circuit passive components ~~wherein said transmission line circuit generation unit generates a transmission line circuit based on the value stored in the value designation table; and~~

a transmission line circuit data storage unit storing the transmission line circuit data generated by the transmission line circuit generation unit.

6. (CURRENTLY AMENDED) ~~The~~A logical circuit designing device ~~according to claim 1~~, further comprising:

a logical circuit storage unit storing a logical circuit;

an addition designation table storing addition information of a passive

~~component~~components composing a~~the~~ logical circuit;circuit; and

a transmission line circuit generation unit generating transmission line circuit data suitable for transmission line circuit analysis based on the stored logical circuit and by adding the passive components according to ~~wherein said transmission line circuit generation unit generates a transmission line circuit by adding the passive component based on the passive component addition information stored in the addition designation table.~~

7. (PREVIOUSLY PRESENTED) A logical circuit designing device, comprising:  
a logical circuit storage unit storing a logical circuit;  
a transmission line circuit generation unit generating a transmission line circuit based on the logical circuit stored in the logical circuit storage unit;  
a transmission line circuit storage unit storing the transmission line circuit generated by the transmission line circuit generation unit; and  
a deletion designation table storing deletion information of a passive component composing a logical circuit, and  
wherein said transmission line circuit generation unit generates a transmission line circuit by deleting the passive component based on the passive component deletion information stored in the deletion designation table.

8. (ORIGINAL) The logical circuit designing device according to claim 3, further comprising  
a topology designation table storing topology information indicating a type of a connection between active components composing a logical circuit, and  
wherein said transmission line circuit generation unit generates a transmission line circuit based on the topology information stored in the topology designation table.

9. (ORIGINAL) The logical circuit designing device according to claim 3, further comprising  
a value designation table storing a value of a passive component composing a logical circuit, and wherein said transmission line circuit generation unit generates a transmission line circuit based on the value stored in the value designation table.

10. (ORIGINAL) The logical circuit designing device according to claim 3, further comprising

an addition designation table storing addition information of a passive component composing a logical circuit, and wherein said transmission line circuit generation unit generates a transmission line circuit by adding the passive component based on the passive component addition information stored in the addition designation table.

11. (PREVIOUSLY PRESENTED) A logical circuit designing device, comprising:  
a logical circuit storage unit storing a logical circuit;  
a transmission line circuit generation unit generating a transmission line circuit based on the logical circuit stored in the logical circuit storage unit;  
a transmission line circuit storage unit storing the transmission line circuit generated by the transmission line circuit generation unit;  
a transmission line circuit editing unit editing the transmission line circuit stored in the transmission line circuit storage unit;  
a logical circuit modification unit modifying the corresponding logical circuit based on the transmission line circuit edited by the transmission line circuit editing unit; and  
a deletion designation table storing deletion information of a passive component composing a logical circuit, and wherein said transmission line circuit generation unit generates a transmission line circuit by deleting the passive component based on the passive component deletion information stored in the deletion designation table.

12. (CANCELLED)

13. (ORIGINAL) The logical circuit designing device according to claim 9, wherein said logical circuit modification unit modifies the value of a passive component of the logical circuit stored in the logical circuit storage unit based on the transmission line circuit edited by the transmission line circuit editing unit.

14. (ORIGINAL) The logical circuit designing device according to claim 10, wherein said logical circuit modification unit modifies the passive component addition information of the logical circuit stored in the logical circuit storage unit based on the transmission line circuit edited by the transmission line circuit editing unit.

15. (ORIGINAL) The logical circuit designing device according to claim 11, wherein said logical circuit modification unit modifies the passive component deletion information of the

logical circuit stored in the logical circuit storage unit based on the transmission line circuit edited by the transmission line circuit editing unit.

16. (ORIGINAL) The logical circuit designing device according to claim 12, wherein said logical circuit modification unit modifies the logical circuit based on a difference between the transmission line circuit edited by the transmission line circuit editing unit and the logical circuit stored in the logical circuit storage unit.

17. (CANCELLED)

18. (CURRENTLY AMENDED) A logical circuit designing method, comprising:  
editing ~~the~~ transmission line circuit stored in ~~the~~ transmission line circuit database;  
and  
modifying a logical circuit corresponding to the transmission line circuit ~~based~~  
~~on~~according to a difference between the edited transmission line circuit and the logical circuit,  
and  
wherein the logic circuit is automatically modified when the transmission line circuit is re-edited.

19. (CURRENTLY AMENDED) A logical circuit designing method, comprising:  
generating a transmission line circuit based on a logical circuit stored in a logical circuit database;  
storing the generated transmission line circuit in a transmission line circuit database;  
editing the transmission line circuit stored in the transmission line circuit database; and  
modifying the generated logical circuit ~~based on~~according to a difference between the edited transmission line circuit and the logical circuit, and  
wherein the logic circuit is automatically modified when the transmission line circuit is re-edited.

20. (CURRENTLY AMENDED) ~~The~~A logical circuit designing method ~~according to claim 17, comprising:~~  
generating transmission line circuit data suitable for transmission line circuit analysis based on a logical circuit stored in a logical circuit database and wherein the transmission line circuit is generated based on the logical circuit connection topology information stored in a

~~topology designation table storing topology information indicating a type~~types of a ~~connection~~connections between active components composing ~~at~~the logical circuit; ~~and, in said generating~~

storing the generated transmission line circuit data in a transmission line circuit database.

21. (CURRENTLY AMENDED) ~~The~~A logical circuit designing method according to ~~claim 17, comprising:~~

generating transmission line circuit data suitable for transmission line circuit analysis based on a logical circuit stored in a logical circuit database and wherein the transmission line circuit is generated based on a valuevalues of a ~~passive component~~components stored in a value designation table ~~storing values of passive for the passive components composing at~~the logical circuit; ~~in said generating; and~~

storing the generated transmission line circuit data in a transmission line circuit database.

22. (CURRENTLY AMENDED) ~~The~~A logical circuit designing method according to ~~claim 17, comprising:~~

generating transmission line circuit data suitable for transmission line circuit analysis based on a logical circuit stored in a logical circuit database and wherein the transmission line circuit is generated by adding a passive componentcomponents based on passive component addition information stored in an addition designation table storing the addition information of the passive components composing atthe logical circuit; ~~and, in said generating~~

storing the generated transmission line circuit data in a transmission line circuit database.

23. (PREVIOUSLY PRESENTED) A logical circuit designing method, comprising:  
generating a transmission line circuit based on a logical circuit stored in a logical circuit database; and

storing the generated transmission line circuit in a transmission line circuit database,  
and

wherein the transmission line circuit is generated by deleting a passive component based on passive component deletion information stored in a deletion designation table storing deletion information of passive components composing a logical circuit, in said generating.

24. (ORIGINAL) The logical circuit designing method according to claim 19, wherein the transmission line circuit is generated based on topology information stored in a topology designation table storing topology information indicating a type of a connection between active components composing a logical circuit, in said generating.

25. (ORIGINAL) The logical circuit designing method according to claim 19, wherein the transmission line circuit is generated based on a value stored in a value designation table storing values of passive components composing a logical circuit, in said generating.

26. (ORIGINAL) The logical circuit designing method according to claim 19, wherein the transmission line circuit is generated by adding a passive component based on addition information of the passive component stored in an addition designation table storing addition information of passive components composing a logical circuit, in said generating.

27. (PREVIOUSLY PRESENTED) A logical circuit designing method, comprising:  
generating a transmission line circuit based on a logical circuit stored in a logical circuit database;  
storing the generated transmission line circuit in a transmission line circuit database  
editing the transmission line circuit stored in the transmission line circuit database; and  
modifying the generated logical circuit based on the edited transmission line circuit, and  
wherein the transmission line circuit is generated by deleting a passive component based on deletion information of the passive component stored in a deletion designation table storing deletion information of passive components composing a logical circuit, in said generating.

28. (CANCELLED)

29. (PREVIOUSLY PRESENTED) The logical circuit designing method according to claim 25, wherein the logical circuit is modified by modifying a value of a logical circuit stored in said logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

30. (PREVIOUSLY PRESENTED) The logical circuit designing method according to

claim 26, wherein the logical circuit is modified by modifying passive component addition information of a logical circuit stored in the logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

31. (PREVIOUSLY PRESENTED) The logical circuit designing method according to claim 27, wherein the logical circuit is modified by modifying passive component deletion information of a logical circuit stored in the logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

32. (CANCELLED)

33. (CANCELLED).

34. (CURRENTLY AMENDED) A computer-readable storage medium which stores a logical circuit designing program for enabling a computer, comprising:  
editing the transmission line circuit stored in the transmission line circuit database; and  
modifying a logical circuit corresponding to the transmission line circuit ~~based~~  
~~on~~according to a difference between the edited transmission line circuit and the logical circuit,  
and  
wherein the logic circuit is automatically modified when the transmission line circuit is re-edited.

35. (CURRENTLY AMENDED) A computer-readable storage medium which stores a logical circuit designing program for enabling a computer, comprising:  
generating a transmission line circuit based on a logical circuit stored in a logical circuit database;  
storing the generated transmission line circuit in a transmission line circuit database;  
editing the transmission line circuit stored in the transmission line circuit database; and  
modifying ~~a~~the logical circuit corresponding to the transmission line circuit ~~based~~  
~~on~~according to a difference between the edited transmission line circuit and the logical circuit,  
and  
wherein the logic circuit is automatically modified when the transmission line circuit is re-edited.



36. (CURRENTLY AMENDED) ~~The storage medium according to claim 33, A machine readable storage storing at least one program controlling a computer according to a process comprising:~~

~~generating transmission line circuit data suitable for transmission line circuit analysis based on a logical circuit stored in a logical circuit database and wherein the transmission line circuit is generated based on the logical circuit connection topology information stored in a topology designation table that stores topology information indicating types of connections between active components composing a the logical circuit; and, in said generating storing the generated transmission line circuit data in a transmission line circuit database.~~

37. (CURRENTLY AMENDED) ~~The storage medium according to claim 33, A machine readable storage storing at least one program controlling a computer according to a process comprising:~~

~~generating transmission line circuit data suitable for transmission line circuit analysis based on a logical circuit stored in a logical circuit database and wherein the transmission line circuit is generated based on a value values of passive components stored in a value designation table storing the values of the passive components composing a the logical circuit; and, in said generating storing the generated transmission line circuit data in a transmission line circuit database.~~

38. (CURRENTLY AMENDED) ~~The storage medium according to claim 33, A machine readable storage storing at least one program controlling a computer according to a process comprising:~~

~~generating transmission line circuit data suitable for transmission line circuit analysis based on a logical circuit stored in a logical circuit database and wherein the transmission line circuit is generated by adding a passive component components based on passive component addition information stored in an addition designation table storing the addition information of the passive components composing a the logical circuit; and, in said generating storing the generated transmission line circuit data in a transmission line circuit database.~~

39. (PREVIOUSLY PRESENTED) A computer-readable storage medium which

stores a logical circuit designing program for enabling a computer, comprising:

generating a transmission line circuit based on a logical circuit stored in a logical circuit database; and

storing the generated transmission line circuit in a transmission line circuit database, and

wherein the transmission line circuit is generated by deleting a passive component based on passive component addition information stored in an addition designation table storing deletion information of passive components composing a logical circuit, in said generating.

40. (PREVIOUSLY PRESENTED) The storage medium according to claim 35, wherein the transmission line circuit is generated based on topology information stored in a topology designation table storing types of connections between active components composing a logical circuit, in said generating.

41. (PREVIOUSLY PRESENTED) The storage medium according to claim 35, wherein the transmission line circuit is generated based on a value stored in a value designation table storing values of passive components composing a logical circuit, in said generating.

42. (PREVIOUSLY PRESENTED) The storage medium according to claim 35, wherein the transmission line circuit is generated by adding a passive component based on passive component addition information stored in an addition designation table storing addition information of passive components composing a logical circuit, in said generating.

43. (CURRENTLY AMENDED) A computer-readable storage medium which stores a logical circuit designing program for enabling a computer, comprising:

generating a transmission line circuit based on a logical circuit stored in a logical circuit database;

storing the generated transmission line circuit in a transmission line circuit database; editing the transmission line circuit stored in the transmission line circuit database; and modifying a logical circuit corresponding to the transmission line circuit based on the edited transmission line circuit, and

wherein the transmission line circuit is generated by deleting a passive component based on passive component ~~addition~~deletion information stored in an ~~addition~~deletion

designation table storing the deletion information of the passive components composing athe logical circuit, in said generating.

44. (CANCELLED)

45. (PREVIOUSLY PRESENTED) The storage medium according to claim 41, wherein the logical circuit is modified by modifying a value of a logical circuit stored in said logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

46. (PREVIOUSLY PRESENTED) The storage medium according to claim 42, wherein the logical circuit is modified by modifying passive component addition information of a logical circuit stored in the logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

47. (PREVIOUSLY PRESENTED) The storage medium according to claim 43, wherein the logical circuit is modified by modifying passive component deletion information of a logical circuit stored in the logical circuit database based on the transmission line circuit edited by said editing, in said modifying.

48. (CANCELLED)

49. (CANCELLED)

50. (CURRENTLY AMENDED) A logical circuit designing ~~program for enabling a computer device~~, comprising:

editing means for editing the transmission line circuit stored in the transmission line circuit database; and

modifying means for modifying a logical circuit corresponding to the transmission line circuit ~~based on~~according to a difference between the edited transmission line circuit and the logical circuit, and

wherein the ~~logic circuit is~~modifying means automatically modifies the logical circuit ~~modified when the transmission line circuit is re-edited.~~

51. (CURRENTLY AMENDED) A logical circuit designing ~~program for enabling a computer device~~, comprising:

transmission line circuit generation means for generating a transmission line circuit based on a logical circuit stored in a logical circuit database;

storage means for storing the generated transmission line circuit in a transmission line circuit database;

editing means for editing the transmission line circuit stored in the transmission line circuit database; and

modifying means for modifying a the logical circuit corresponding to the transmission line circuit based on the edited transmission line circuit, and

wherein the ~~logic circuit is~~ modifying means automatically modified modifies the logical circuit when the transmission line circuit is re-edited.

52. (CURRENTLY AMENDED) ~~The~~ A logical circuit designing ~~program according to claim 49~~ device, comprising:

transmission line circuit generation means generating transmission line circuit data suitable for transmission line circuit analysis based on a logical circuit stored in a logical circuit database and wherein the transmission line circuit is generated based on the logical circuit connection topology information stored in a topology designation table that stores topology information indicating types of connections between active components composing a the logical circuit; and, in said generating

storage means for storing the generated transmission line circuit data in a transmission line circuit database.

53. (CURRENTLY AMENDED) ~~The~~ A logical circuit designing ~~program according to claim 49~~ device, comprising:

transmission line circuit generation means generating transmission line circuit data suitable for transmission line circuit analysis based on a logical circuit stored in a logical circuit database and wherein the transmission line circuit is generated based on a value passive component values stored in a value designation table storing the values of the passive components composing a the logical circuit; in said generating; and

storage means for storing the generated transmission line circuit data in a transmission line circuit database.

54. (CURRENTLY AMENDED) ~~The~~A logical circuit designing ~~program according to claim 49~~device, comprising:

transmission line circuit generation means generating transmission line circuit data suitable for transmission line circuit analysis based on a logical circuit stored in a logical circuit database and wherein the transmission line circuit is generated by adding a passive component~~components~~ based on passive component addition information stored in an addition designation table storing the addition information of the passive components composing athe logical circuit,~~in said generating; and~~

storage means for storing the generated transmission line circuit data in a transmission line circuit database.

55. (CURRENTLY AMENDED) A logical circuit designing ~~program for enabling a computer~~device, comprising:

transmission line circuit generation means for generating a transmission line circuit based on a logical circuit stored in a logical circuit database; and

storage means for storing the generated transmission line circuit in a transmission line circuit database, and

wherein the transmission line circuit is generated by deleting a passive component based on passive component addition information stored in an addition designation table storing deletion information of passive components composing a logical circuit,~~in said generating.~~

56. (CURRENTLY AMENDED) The logical circuit designing ~~program~~device according to claim 51, wherein the transmission line circuit is ~~generated~~generation means generates the transmission line circuit based on topology information stored in a topology designation table storing types of connections between active components composing a logical circuit,~~in said generating.~~

57. (CURRENTLY AMENDED) The logical circuit designing ~~program~~device according to claim 51, wherein the transmission line circuit is ~~generated~~generation means generates the transmission line circuit based on a value stored in a value designation table storing values of passive components composing a logical circuit,~~in said generating.~~

58. (CURRENTLY AMENDED) The logical circuit designing ~~program~~device according to claim 51, wherein the transmission line circuit is ~~generated~~generation means

generates the transmission line circuit by adding a passive component based on passive component addition information stored in an addition designation table storing addition information of passive components composing a logical circuit, ~~in said generating.~~

59. (CURRENTLY AMENDED) A logical circuit designing ~~program for enabling a computer device~~, comprising:

transmission line circuit generation means for generating a transmission line circuit based on a logical circuit stored in a logical circuit database;

storage means for storing the generated transmission line circuit in a transmission line circuit database;

editing means for editing the transmission line circuit stored in the transmission line circuit database; and

modifying means for modifying a logical circuit corresponding to the transmission line circuit based on the edited transmission line circuit, and

wherein the transmission line circuit is generated by deleting a passive component based on passive component addition information stored in an addition designation table storing deletion information of passive components composing a logical circuit, in said generating.

60. (CANCELLED)

61. (CURRENTLY AMENDED) The logical circuit designing ~~program device~~ according to claim 57, wherein the ~~logical circuit is modified~~ modifying means modifies the logical circuit by modifying a value of a logical circuit stored in the logical circuit database based on the transmission line circuit edited by said editing, ~~in said modifying.~~

62. (CURRENTLY AMENDED) The logical circuit designing ~~program device~~ according to claim 58, wherein the ~~logical circuit is modified~~ modifying means modifies the logical circuit by modifying passive component addition information of a logical circuit stored in the logical circuit database based on the transmission line circuit edited by said editing, ~~in said modifying.~~

63. (CURRENTLY AMENDED) The logical circuit designing ~~program device~~ according to claim 59, wherein the ~~logical circuit is modified~~ modifying means modifies the logical circuit by modifying passive component deletion information of a logical circuit stored in

the logical circuit database based on the transmission line circuit edited by said editing, ~~in said~~ modifying.

64. (CANCELLED)

65. (CURRENTLY AMENDED) A logical circuit designing device, comprising:

logical circuit storage means for storing a logical circuit;

storage means for storing at least one of logical circuit topology information, values of passive components, addition and/or deletion information of the passive components;

transmission line circuit generation means for generating transmission line circuit data suitable for transmission line circuit analysis based on the logical circuit stored in the logical circuit storage means and the stored at least one of logical circuit topology information, values of passive components, addition and/or deletion information of the passive components; and

transmission line circuit storage means for storing the transmission line circuit data generated by the transmission line circuit generation means.